03040202-060

(Fork Creek)

General Description

Watershed 03040202-060 (formerly 03040202-050) is located in Chesterfield County and consists primarily of ***Fork Creek*** and its tributaries. The watershed occupies 26,764 acres of the Sandhills region of South Carolina. The predominant soil types consist of an association of the Blaney-Candor-Vaucluse-Gilead series. The erodibility of the soil (K) averages 0.12; the slope of the terrain averages 7%, with a range of 1-15%. Land use/land cover in the watershed includes: 43.5% forested land, 36.5% agricultural land, 14.1% scrub/shrub land, 4.9% barren land, 0.7% water, and 0.3% urban land.

Fork Creek accepts drainage from Canal Branch (Shady Slash Branch), Gum Branch (Dry Branch, Clark Mill Branch), Mill Branch, Meeting House Branch, and Joes Branch before joining Little Fork Creek. Reedy Fork flows into Little Fork Creek to form Plyer Pond. Further downstream, Little Fork Creek flows through Lake Terry and accepts drainage from Mose Branch, Canal Branch, and Brazzell Branch. The Fork Creek Watershed flows into the Lynches River. There are a total of 58.0 stream miles and several ponds (totaling 85.1) in this watershed, all classified FW.

Water Quality

Station #	Type	Class	Description
PD-647	BIO	FW	LITTLE FORK CREEK AT COUNTY ROAD 39
PD-215	S	FW	LITTLE FORK CREEK AT S-13-265 1.5 MILES SW JEFFERSON
PD-067	S	FW	FORK CREEK AT SC 151
PD-068	S	FW	FORK CREEK AT UNNUMBERED ROAD 1.5 MILES SW JEFFERSON

Little Fork Creek - There are two monitoring sites along Little Fork Creek. At the upstream site ***(PD-647)***, aquatic life uses are fully supported based on macroinvertebrate community data. At the downstream site ***(PD-215)***, aquatic life uses are not supported due to occurrences of copper in excess of the aquatic life acute standards, including high concentrations of copper measured in 1994 and 1998. Recreational uses are fully supported and a significant decreasing trend in fecal coliform bacteria concentration suggests improving conditions for this parameter.

Fork Creek - There are two monitoring sites along Fork Creek. At the upstream site ***(PD-067)***, aquatic life uses are fully supported; however, there are significant increasing trends in five-day biochemical oxygen demand and turbidity. At the downstream site ***(PD-068)***, aquatic life uses are not supported due to occurrences of copper in excess of the aquatic life acute standards, including a very high concentration of copper measured in 1994. In addition, there was a significant increasing trend in turbidity. Recreational uses are not supported at either site due to fecal coliform bacteria excursions.

NPDES Program

Active NPDES Facilities

RECEIVING STREAM *FACILITY NAME* *PERMITTED FLOW @ PIPE (MGD)* *COMMENT*	*NPDES#* *TYPE* *LIMITATION*
FORK CREEK CLEVELAND CAROKNIT PLT PIPE #: 001 FLOW: 0.720 WQL FOR TRC,NH3N,BOD5	SC0002500 MAJOR INDUSTRIAL WATER QUALITY
BRAZZELL BRANCH TOWN OF JEFFERSON WWTP PIPE #: 001 FLOW: 0.15 WQL FOR TRC,NH3N,BOD5	SC0024767 MINOR DOMESTIC WATER QUALITY
BRAZZELL BRANCH TOWN OF JEFFERSON WTP PIPE #: 001 FLOW: M/R WQL FOR TRC	SCG645015 MINOR DOMESTIC WATER QUALITY
LITTLE FORK CREEK BREWER GOLD CO. PIPE #: 001 FLOW: 0.864 WQL FOR TRC,NH3N,BOD5	SC0040657 MINOR INDUSTRIAL WATER QUALITY

Nonpoint Source Management Program

Mining Activities

MINING COMPANY *MINE NAME*	*PERMIT #* *MINERAL*
MARTIN MARIETTA MATERIALS CHESTERFIELD QUARRY	1062-25 GRANITE
BREWER SAND CO., INC. BREWER SAND PIT #2	0271-25 SAND

Water Supply

WATER USER (TYPE) *STREAM*	*REGULATED CAPACITY (MGD)* *PUMPING CAPACITY (MGD)*
TOWN OF PAGELAND (M) LAKE TERRY	1.40 2.90

Growth Potential

There is a low to moderate potential for growth in this watershed, which contains the Town of Jefferson and is adjacent to the Town of Pageland. The watershed is bisected by S.C. Hwy. 151, which has recently been widened to four lanes and a bipass around Jefferson has been completed. S.C. Hwy. 151 is a major travel corridor from Charlotte to Florence and Myrtle Beach, and additional commercial and industrial development is expected along this route. There is no sewer service in the watershed, but water service is provided for Jefferson and the area immediately surrounding it, along with a well water line running from Lake Terry to Pageland. Water service may be extended along S.C. Hwy 151 between Pageland and Jefferson, which could encourage growth.

03040202-070

(Little Lynches River)

General Description

Watershed 03040202-070 is located in Lancaster and Kershaw Counties and consists primarily of the ***Little Lynches River*** and its tributaries from its origin to Mill Creek. The watershed occupies 86,935 acres of the Piedmont and Sandhills regions of South Carolina. The predominant soil types consist of an association of the Lakeland-Blanton-Wagram-Goldston series. The erodibility of the soil (K) averages 0.11; the slope of the terrain averages 12%, with a range of 0-45%. Land use/land cover in the watershed includes: 75.0% forested land, 15.6% agricultural land, 6.0% scrub/shrub land, 2.6% forested wetland, 0.3% water, 0.3% barren land, and 0.2% urban land.

Baskins Creek (Lyles Branch, Falls Branch, Bend Creek) is joined by Blackmon Branch to form the headwaters of the Little Lynches River. The Little Lynches River accepts drainage from Horton Creek (Little Lynches Creek, Sunrise Lake, Beckham Branch, Mobley Branch), Mill Creek, Camp Branch, Todds Branch, Haile Gold Mine Creek (Ledbetter Reservoir), and Neds Creek. Hanging Rock Creek (Lick Creek) flows past the City of Kershaw to join the Little Lynches River downstream of Neds Creek, followed by Gates Ford Branch and Shirley Creek. There are several ponds (totaling 134.0 acres) in this watershed and a total of 181.9 stream miles, all classified FW.

Water Quality

Station #	Type	Class	Description
PD-640	BIO	FW	LITTLE LYNCHES CREEK AT S-29-88
PD-335	S	FW	HORTON CREEK AT S-29-95
PD-005	S	FW	TODDS BRANCH AT S-29-564 1.5 MILES NE OF KERSHAW
PD-006	P	FW	LITTLE LYNCHES RIVER AT US 601 2 MILES NE KERSHAW
PD-334	S	FW	HAILE GOLD MINE CREEK AT S-29-188
PD-632	BIO	FW	LITTLE LYNCHES RIVER AT SC 157
PD-109	P	FW	LITTLE LYNCHES RIVER AT SC 341, 4 MILES SE OF KERSHAW
(PD-343)	W	FW	LITTLE LYNCHES RIVER AT S-28-42
PD-329	S	FW	LICK CREEK AT S-29-13 ABOVE KERSHAW PLANT
PD-669	BIO	FW	HANGING ROCK CREEK AT SR 770
PD-328	S	FW	HANGING ROCK CREEK OFF S-29-84 1.6 MILES S OF KERSHAW

Little Lynches Creek (PD-640) - Aquatic life uses are partially supported based on macroinvertebrate community data.

Horton Creek (PD-335) - Aquatic life uses are fully supported, but recreational uses are not supported due to fecal coliform bacteria excursions.

Todds Branch (PD-005) - Aquatic life uses are fully supported. A significant decreasing trend in five-day biochemical oxygen demand suggests improving conditions for this parameter. Recreational uses are not supported due to fecal coliform bacteria excursions; however, a significant decreasing trend in fecal coliform bacteria concentration suggests improving conditions for this parameter.

Little Lynches River - There are three monitoring sites along this section of the Little Lynches River. Aquatic life uses are fully supported at the furthest upstream site ***(PD-006)***; however, there was a very high concentration of zinc measured in 1995 and a significant increasing trend in turbidity. A significant increasing trend in dissolved oxygen concentration and significant decreasing trends in five-day biochemical oxygen demand, total phosphorus concentration, and total nitrogen concentration suggest improving conditions for these parameters. Recreational uses are partially supported due to fecal coliform bacteria excursions. At the next site downstream ***(PD-632)***, aquatic life uses are fully supported based on macroinvertebrate community data.

Aquatic life uses are fully supported at the downstream site ***(PD-109)***; however, there is a significant increasing trend in turbidity. A significant increasing trend in dissolved oxygen concentration suggests improving conditions for this parameter. A very high concentration of chromium was measured in the 1997 sediment sample, and P,P'DDE (a metabolite of DDT) was detected in the 1994 and 1998 samples. Although the use of DDT was banned in 1973, it is very persistent in the environment. Recreational uses are fully supported.

Station ***PD-343*** is physically located in the lower Little Lynches River watershed 03040202-080, but also reflects the influence from this watershed drainage. Aquatic life uses are fully supported at ***PD-343***, but recreational uses are partially supported due to fecal coliform bacteria excursions.

Haile Gold Mine Creek (PD-334) - Aquatic life uses are not supported due to pH excursions. There is a significant increasing trend in pH. Significant decreasing trends in five-day biochemical oxygen demand and total phosphorus concentration suggest improving conditions for these parameters. In sediment, a high concentration of mercury was measured in the 1995 sample. Recreational uses are fully supported.

Lick Creek (PD-329) - Aquatic life uses are fully supported. A significant decreasing trend in five-day biochemical oxygen demand suggests improving conditions for this parameter. Recreational uses are not supported due to fecal coliform bacteria excursions.

Hanging Rock Creek - There are two monitoring sites along Hanging Rock Creek. Aquatic life uses are partially supported at the upstream site ***(PD-669)*** based on macroinvertebrate community data. Aquatic life uses are fully supported at the downstream site ***(PD-328)***. A significant increasing trend in dissolved oxygen and a significant decreasing trend in five-day biochemical oxygen demand suggest improving conditions for these parameters. Recreational uses are partially supported at this site due to fecal coliform bacteria excursions.

NPDES Program

Active NPDES Facilities

RECEIVING STREAM / ***FACILITY NAME***	***NPDES#*** / ***TYPE***

PERMITTED FLOW @ PIPE (MGD) *COMMENT*	*LIMITATION*
BECKHAM BRANCH TOWN OF HEATH SPRINGS/WWTP PIPE #: 001 FLOW: 0.075 WQL FOR DO,TRC,NH3N	SC0040118 MINOR DOMESTIC WATER QUALITY
BECKHAM BRANCH TRIBUTARY HEATH SPRINGS ELEMENTARY PIPE #: 001 FLOW: 0.012 WQL FOR DO,TRC,NH3N	SC0035301 MINOR DOMESTIC WATER QUALITY
HAILE GOLD MINE CREEK HAILE MINING VENTURE PIPE #: 001 FLOW: M/R PIPE #: 002 FLOW: M/R	SC0040479 MINOR INDUSTRIAL WQL FOR TRC EFFLUENT
HANGING ROCK CREEK TOWN OF KERSHAW WTP PIPE #: 001 FLOW: M/R WQL FOR TRC	SC0041050 MINOR DOMESTIC WATER QUALITY
HORTON CREEK TRIBUTARY ANDREW JACKSON HIGH SCHOOL PIPE #: 001 FLOW: 0.025 WQL FOR DO,TRC,NH3N	SC0030198 MINOR DOMESTIC WATER QUALITY
LICK CREEK TOWN OF KERSHAW WWTP PIPE #: 001 FLOW: 1.00 WQL FOR DO,TRC,NH3N	SC0025798 MAJOR DOMESTIC WATER QUALITY

Nonpoint Source Management Program

Mining Activities

MINING COMPANY *MINE NAME*	*PERMIT #* *MINERAL*
JIM LINEBERG GRADING & PAVING PARKER/BLACKWELL PIT	0440-57 SAND
PIEDMONT MINING CO., INC. HAILE MINE	0601-57 GOLD ORE
MINERAL MINING CORP. HILLTOP MINE	0214-57 SERICITE
BREWER GOLD CO. SPRINGS PROJECT MINE	0933-57 GOLD ORE

Water Supply

WATER USER (TYPE) *STREAM*	*REGULATED CAPACITY (MGD)* *PUMPING CAPACITY (MGD)*
TOWN OF KERSHAW (M)	0.80

Growth Potential

There is a low to moderate potential for growth in this watershed, which contains the Towns of Kershaw and Heath Springs. A rail line connects the Town of Kershaw to the Cities of Lancaster and Camden along U.S. Hwy 521, and may provide some future growth.